

IN THE CLAIMS:

This listing of the claims replaces all prior listing of the claims.

Listing of the claims

1. (Original) A panel of biomarkers for colorectal cancer and colorectal polyps comprising at least two polynucleotides selected from SEQ ID NOs 1-5.

2. (Original) The panel of claim 1, where the panel is selected for analysis of polynucleotide expression levels for colorectal cancer and colorectal polyps.

3. (Original) The panel of claim 2, where the polynucleotide expression levels are mRNAs.

4. (Original) The panel of claim 2, where the polynucleotide expression levels are cDNAs.

5. (Original) The panel of claim 1, where at least one of the polynucleotides is a fragment.

6. (Original) The panel of claim 1, where at least one of the polynucleotides is a variant.

7. (Original) The panel of claim 1, where the panel is used for the management of patient care in colorectal cancer and colorectal polyps.

8. (Original) The panel of claim 7, where the management of patient care includes one or more of risk assessment, early diagnosis, establishing prognosis, monitoring patient treatment, and detecting relapse.

9. (Original) The panel of claim 1, where the panel is used in discovery of therapeutic intervention of colorectal cancer and colorectal polyps.

10. (Original) A panel of biomarkers for colorectal cancer and colorectal polyps comprising: at least two polynucleotides selected from SEQ ID NOs 1-5; and at least one polynucleotide selected from SEQ ID NOs 6-14.

11. (Original) The panel of claim 10, where the panel is selected for analysis of polynucleotide expression levels for colorectal cancer and colorectal polyps.

12. (Original) The panel of claim 11, where the polynucleotide expression levels are mRNAs.

13. (Original) The panel of claim 11, where the polynucleotide expression levels are cDNAs.

14. (Original) The panel of claim 10, where at least one of the polynucleotides is a fragment.

15. (Original) The panel of claim 10, where at least one of the polynucleotides is a variant.

16. (Original) The panel of claim 10, where the panel is used in the management of patient care for colorectal cancer and colorectal polyps.

17. (Original) The panel of claim 16, where the management of patient care includes one or more of risk assessment, early diagnosis, establishing prognosis, monitoring patient treatment, and detecting relapse.

18. (Original) The panel of claim 10, where the panel is used in discovery of therapeutic intervention of colorectal cancer and colorectal polyps.

19. (Original) A panel of biomarkers for colorectal cancer and colorectal polyps comprising: at least two polynucleotides selected from SEQ ID NOs 1-5; at least one polynucleotide selected from SEQ ID NOs 6-14; and at least one polynucleotide selected from SEQ ID NOs 15-22.

20. (Original) The panel of claim 19, where the panel is selected for analysis of polynucleotide expression levels for colorectal cancer and colorectal polyps.

21. (Original) The panel of claim 20, where the polynucleotide expression levels are mRNAs.

22. (Original) The panel of claim 20, where the polynucleotide expression levels are cDNAs.

23. (Original) The panel of claim 19, where at least one of the polynucleotides is a fragment.

24. (Original) The panel of claim 19, where at least one of the polynucleotides is a variant.

25. (Original) The panel of claim 25, where the panel is the basis for management of patient care in colorectal cancer and colorectal polyps.

26. (Original) The panel of claim 19, where the management of patient care includes one or more of risk assessment, early diagnosis, establishing prognosis, monitoring patient treatment, and detecting relapse.

27. (Original) The panel of claim 25, where the panel is used in discovery of therapeutic intervention of colorectal cancer and colorectal polyps.

28. (Original) A panel of biomarkers for colorectal cancer and colorectal polyps comprising at least two polypeptides selected from SEQ ID NOs 23-27.

29. (Original) The panel of claim 28, where the panel is selected for analysis of polypeptide expression levels for colorectal cancer and colorectal polyps.

30. (Original) The panel of claim 28, where at least one of the polypeptides is a fragment.

31. (Original) The panel of claim 28, where at least one of the polypeptides is a variant.

32. (Original) The panel of claim 28, where the panel is used in the management of patient care in colorectal cancer and colorectal polyps.

33. (Original) The panel of claim 32, where the management of patient care includes one or more of risk assessment, early diagnosis, establishing prognosis, monitoring patient treatment, and detecting relapse.

34. (Original) The panel of claim 28, where the panel is used in discovery of therapeutic intervention of colorectal cancer and colorectal polyps.

35. (Original) A panel of biomarkers for colorectal cancer and colorectal polyps comprising: at least two polypeptides selected from SEQ ID NOs 23-27; and at least one polypeptide selected from SEQ ID NOs 28-36.

36. (Original) The panel of claim 35, where the panel is selected for analysis of polypeptide expression levels for colorectal cancer and colorectal polyps.

37. (Original) The panel of claim 35, where at least one of the polypeptides is a fragment.

38. (Original) The panel of claim 35, where at least one of the polypeptides is a variant.

39. (Original) The panel of claim 35, where the panel is used in the management of patient care in colorectal cancer and colorectal polyps.

40. (Original) The panel of claim 39, where the management of patient care includes one or more of risk assessment, early diagnosis, establishing prognosis, monitoring patient treatment, and detecting relapse.

41. (Original) The panel of claim 35, where the panel is used in discovery of therapeutic intervention of colorectal cancer and colorectal polyps.

42. (Original) A panel of biomarkers for colorectal cancer and colorectal polyps comprising: at least two polypeptides selected from SEQ ID NOS 23-27; at least one polypeptide selected from SEQ ID NOS 28-36; and at least one polypeptide selected from SEQ ID NOS 37-44.

43. (Original) The panel of claim 42, where the panel is selected for analysis of polypeptide expression levels for colorectal cancer and colorectal polyps.

44. (Original) The panel of claim 42, where at least one of the polypeptides is a fragment.

45. (Original) The panel of claim 42, where at least one of the polypeptides is a variant.

46. (Original) The panel of claim 42, where the panel is used in the management of patient care in colorectal cancer and colorectal polyps.

47. (Original) The panel of claim 46, where the management of patient care includes one or more of risk assessment, early diagnosis, establishing prognosis, monitoring patient treatment, and detecting relapse.

48. (Original) The panel of claim 42, where the panel is used in discovery of therapeutic intervention of colorectal cancer and colorectal polyps.

49. (Original) A method for measuring expression levels of polynucleotides from biomarkers for colorectal cancer and colorectal polyps, comprising:

selecting a panel of biomarkers comprising at least two polynucleotides from SEQ ID NOs 1-5;

obtaining a biological sample; isolating cellular RNA from the sample; amplifying copies of cDNA from the sample for each biomarker in the panel; and

quantifying levels of cDNA amplified from the sample.

50. (Original) The method of claim 49, where the step of selecting a panel of biomarkers further comprises at least one polynucleotide from SEQ ID NOs 6-14.

51. (Original) The method of claim 49, where the step of selecting a panel of biomarkers further comprises: at least one polynucleotide from SEQ ID NOs 6-14; and at least one polynucleotide from SEQ ID NOs 15-22.

52. (Currently Amended) The method of claim 49, where the step of amplifying copies of cDNA further comprises at least two sets of primers chosen from SEQ. ID NOs 45-50 88.

53. (Original) The method of claim 52, where the step of amplifying copies of cDNA further comprises using enzymes and reagents for the preparation of cDNAs.

54. (Original) The method of claim 49, where the step of quantifying the levels of cDNA further comprises labeling cDNA.

55. (Original) The method of claim 54, where labeling cDNA includes at least one chromophore.

56. (Original) The method of claim 49, where the cDNA levels for the sample are compared to a control.

57. (Original) The method of claim 56, where the comparison is used in the management of patient care in colorectal cancer and colorectal polyps.

58. (Original) The method of claim 57, where the management of patient care includes one or more of risk assessment, early diagnosis, establishing prognosis, monitoring patient treatment, and detecting relapse.

59. (Original) The method of claim 56, where the comparison is used in discovery of therapeutic intervention of colorectal cancer and colorectal polyps.

60. (Original) The method of claim 49, where the step of obtaining a biological sample is by obtaining a sample of colorectal cells.

61. (Original) The method of claim 60, where the step of obtaining a sample of colorectal cells is minimally invasive.

62. (Original) The method of claim 61, where the minimally invasive step is by use of a swab.

63. (Original) The method of claim 60, where the step of obtaining a sample of colorectal cells is non-invasive.

64. (Original) The method of claim 63, where the non-invasive step is by collection of a stool sample.

65. (Original) A method for measuring expression levels of polypeptides from biomarkers for colorectal cancer and colorectal cancer, comprising: selecting a panel of biomarkers comprising at least two polypeptides from SEQ ID NOs 23-27; obtaining a biological sample; creating an antibody panel for each biomarker in the panel; using the antibody panel to bind the polypeptides from the sample; and quantifying levels of polypeptides bound from the sample to the antibody panel.

66. (Original) The method of claim 65, where the step of selecting a panel of biomarkers further comprises at least one polypeptide from SEQ ID NOs 28-36.

67. (Original) The method of claim 65, where the step of selecting a panel of biomarkers further comprises: at least one polypeptide from SEQ ID NOs 28-36; and at least one polypeptide from SEQ ID NOs 37-44.

68. (Original) The method of claim 65, where the polypeptide levels for the sample are compared to a control.

69. (Original) The method of claim 68, where the comparison is used in the management of patient care in colorectal cancer and colorectal polyps.

70. (Original) The method of claim 69, where the management of patient care includes one or more of risk assessment, early diagnosis, establishing prognosis, monitoring patient treatment, and detecting relapse.

71. (Original) The method of claim 68, where the comparison is used in discovery of therapeutic intervention of colorectal cancer and colorectal polyps.

72. (Original) The method of claim 65, where the step of obtaining a biological sample is by obtaining a sample of colorectal cells.

73. (Original) The method of claim 72, where the step of obtaining a sample of colorectal cells is minimally invasive.

74. (Original) The method of claim 73, where the minimally invasive step is by use of a swab.

75. (Original) The method of claim 72, where the step of obtaining a sample of colorectal cells is non-invasive.

76. (Original) The method of claim 75, where the non-invasive step is by collection of a stool sample.

77. (Original) The method of claim 65, where the step of quantifying the bound polypeptides further comprises labeling the polypeptides.

78. (Original) The method of claim 77, where labeling the polypeptides comprises using a second antibody.

79. (Original) A kit for the determination of colorectal cancer and colorectal polyps comprising: at least one reagent that is used in analysis of polynucleotide expression levels for a panel of biomarkers for colorectal cancer and colorectal polyps, where the panel comprises at least two polynucleotides listed in SEQ ID NOs 1-5; and instructions for using the kit for analyzing the expression levels.

80. (Original) The kit of claim 79, where the panel of biomarkers further comprises at least one polynucleotides listed in SEQ ID NOs 6-14.

81. (Original) The kit of claim 79, where the panel of biomarkers further comprises: at least one polynucleotide selected from SEQ ID NOs 6-14; and at least one polynucleotide selected from SEQ ID NOs 15-22.

82. (Original) The kit of claim 79, where the polynucleotide expression levels are mRNAs.

83. (Original) The kit of claim 79, where the polynucleotide expression levels are cDNAs.

84. (Currently Amended) The kit of claim 83, where the reagent comprises at least two sets of primers chosen from SEQ. ID NOs 45-50 88.

85. (Original) The kit of claim 84, further comprising reagents for the preparation of cDNA.

86. (Original) The kit of claim 79, comprising a reagent that is used for detection and quantitation of polynucleotides.

87. (Original) The kit of claim 86, where the reagent includes at least one chromophore.

88. (Original) The kit of claim 79, further comprising consumable labware for at least one of sample collection, sample preparation, and sample analysis.

89. (Original) A kit for the determination of colorectal cancer and colorectal polyps comprising: at least one reagent used in that analysis of polypeptide expression levels for a panel of biomarkers for colorectal cancer and colorectal polyps, where the panel comprises at least two polypeptides listed in SEQ. ID NOs 23-27; and instructions for using the kit for analyzing the expression levels.

90. (Original) The kit of claim 89, where the panel of biomarkers further comprises at least one polynucleotides listed in SEQ ID NOs 28-36.

91. (Original) The kit of claim 89, where the panel of biomarkers further comprises: at least one polynucleotide selected from SEQ ID NOs 28-36; and at least one polynucleotide selected from SEQ ID NOs 37-44.

92. (Original) The kit of claim 89, where the reagent is an antibody reagent that binds a polypeptide selected in the panel.

93. (Original) The kit of claim 89, further comprising a reagent that is used for detection and quantitation of a bound polypeptide.

94. (Original) The kit of claim 93, where the reagent includes a second antibody.

95. (Original) The kit of claim 89, further comprising consumable labware for at least one of sample collection, sample preparation, and sample analysis.